

Remote Sensing Capabilities

Problem/Need

- Atmospheric remote sensing can provide countermeasure improvements to electro-optical systems
- Remote sensing measurements provide real-time range resolved analysis of atmospheric aerosols, molecular species and ozone
- LIDAR (Light Detection and Ranging) has high potential for military applications

Results

- Atmospheric extinction coefficient returns
Aerosol profiles
Vertical aerosol profiling to 40km
Range resolved optical backscatter
Atmospheric attenuation UV, VIS, IR
Support of programs:
NOAA
US Navy Missile Approach Warning Sensor
Aviation Electronic Combat PM

Approach

- Vertical, horizontal or slant path mode operation at 1064, 532, 355, or 266nm
- Data interpretation/system performance simulated with BACKSCAT, LOWTRAN AND UVTRAN computer codes
- Atmospheric measurements of transmission/extinction through smokes, aerosols, fogs and characterization of attenuation effects on electro-optical sensors/weapons performance

